MURPA Seminar 8/2009: Exploring OptIPortals as Petascale Simulation End Stations

Date and time:

    7/05/2009, 10:00-11.00am

Location:

    Building: 26, Room: 135, Clayton Campus (via HD Interactive Video)

Presenter:

    Mike Norman, Chief Scientific Officer San Diego Supercomputer Center

Abstract:

We are exploring the potential of OptIPortals to serve as visualization and analysis end stations for multi• TB data sets arising from petascale simulations carried out on Tera Grid resources principally the Track 2 systems at TACC and NICS. OptIPortals, developed by CalIT2, are scalable display walls tightly integrated with a specially configured Rocks• - managed Linux cluster and driven by optical lambdas connected to local and/or remote disk caches. Up until now, OptIPortals have been mainly used for displaying data from instruments, as well as remote collaboration portals. The Laboratory for Computational Astrophysics and SDSC, working in collaboration with CalIT2, have begun a 12• month pilot project in which an OptIPortal will be built and integrated into the TeraGrid. As an initial application driver, we will focus on ENZO data which is being produced at prodigious rates (10's TB/mo.) on both Ranger and Kraken through the PI's LRAC allocation.

Bio

Michael L. Norman is professor of physics at UCSD where he directs the Laboratory for Computational Astrophysics. He received his B.S. from Caltech in 1975, and his Ph. D. from UC Davis in 1980. After holding appointments at the Lawrence Livermore and Los Alamos National Laboratories, the Max Planck Institute for Astrophysics, and the National Center for Supercomputing Applications, he joined the faculty at UCSD in 2000. His research focus is the computer simulation of astronomical phenomena using supercomputers. He is the author of over 200 papers on diverse topics including star formation, cosmic jets, and galaxy formation. His computer visualizations have appeared in numerous educational TV shows and films, including PBS Nova and The Discovery Channel. He is the recipient of the Alexander von Humboldt Research Prize and the IEEE Sidney Fernbach Award. He was elected Fellow of the American Physical Society in 2001, and the American Academy of Arts and Sciences in 2005.

More Information on Mike Norman:

For more information, visit: **http://ucsdnews.ucsd.edu/newsrel/supercomputer/06-**

08MichealNorman.asp

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